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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/727,096	12/02/2003	David K. Swanson	03-0242 (US01)	6001

41696 7590 05/18/2007  
VISTA IP LAW GROUP LLP  
12930 Saratoga Avenue  
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EXAMINER
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ROANE, AARON F

ART UNIT	PAPER NUMBER
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3739

MAIL DATE	DELIVERY MODE
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05/18/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/727,096	<b>Applicant(s)</b> SWANSON, DAVID K.	
	<b>Examiner</b> Aaron Roane	<b>Art Unit</b> 3739	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 April 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 7-12, 28-35, 37-40, 43-47 and 54-56 is/are pending in the application.
- 4a) Of the above claim(s) 12 and 29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7-11, 28, 30-35, 37-40, 43-47 and 54-56 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12/2/2003 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                            |                                                                                         |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                           | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7-11, 28, 30, 40 and 43-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lundback (US 4,736,749) in view of Samson (US 6,185,442).

Regarding claim 7, 9-11, 28, 43 and 45-47, Lundback discloses a surgical apparatus comprising a tube (8) defining a proximal region and a distal region; a cup-shaped suction device (1-3 collectively) associated with the distal region of the tube and defining a surface (surface defined by 4), wherein part of the cup-shaped suction device is flexible (1), a tissue stimulation electrode (the tissue contacting side of 30) on the suction device distal surface; a source of stimulation energy ("electrical power source not shown" see col. 3, lines 3-12) connected to the stimulation electrode; and a suction source (see col. 3, lines 26-29), see col. 3 and 4 and figures 1-4. Lundback fail to disclose a distal surface that has normal vector (a direction traverse and away from the surface) that is aligned with the central longitudinal axis of the tube. Samson discloses a suction electrode

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device comprising a suction device (10), a tube (15) and an electrode (16) and teaches an alternative arrangement of the suction device (10) and tube (15) such that the normal vector of the suction device is aligned with the central axis of the tube. This combination provides a suction device connected to the distal end of a tube wherein the distal surface of the suction device has a normal vector that is aligned with the central axis of the tube. Therefore at the time of the invention it would have been obvious to one of ordinary skill in the art to modify the invention of Lundback, as taught by Samson, to provide the alternate arrangement of the suction device and tube as a means of providing suction and electrical energy delivery to tissue.

Regarding claims 8 and 44, Lundback discloses the claimed invention except for explicitly reciting that the suction tube is flexible. Samson disclose a suction electrode device comprising a suction (10) and an electrode (16) and teach the use of connecting the suction cup (10) to the pressure manipulator (14) via a bendable hose/tubing (15) in order to provide suction or vacuum pressure to the cup and to facilitate the comfort and versatile positioning during use, see col. 3 and 4 and figures 1-3. Therefore at the time of the invention it would have been obvious to one of ordinary skill in the art to modify the invention of Lundback in view of Samson, as further taught by Samson, to use a bendable hose/tubing in order to connect the suction cup to the pressure manipulator and to facilitate comfort and versatile positioning during use.

Regarding claims 30 and 40, Lundback discloses an electrode size for the stimulation electrode that does not form a lesion of any kind at all, see col. 3 and 4 and figures 1-4.

Regarding claims 54-56, Lundback in view of Samson disclose the suction device that defines lumen (small, shallow opening which connects the tube to the suction device), the suction device is connected to the suction source by the lumen, and the distal surface carrying the tissue stimulation element extends outwardly beyond lumen.

Claims 31-33 and 37-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Lundback (US 4,736,749) in view of Samson (US 6,185,442) as applied to claims 7 and 28 above, and further in view of Rau (US 4,685,466).

Regarding claims 31-33 and 37-39, Lundback in view of Samson disclose the claimed invention except for explicitly reciting that the stimulation electrode defines a perimeter of about 1.5 mm to 3mm, a thickness of about 0.01 mm and/or a diameter of about 0.5 mm to 1.0 mm. Rau discloses a stimulation suction electrode and teaches providing the electrode in a needle configuration (1) in order to provide fixation without electrode paste or jelly and to reduce skin resistance, see col. 3, lines 1-15, col. 4, lines 29-49 and figures 4-6. The needle electrode of Rau provides all of the recited dimensions of the claimed invention. Therefore at the time of the invention it would have been obvious to one of ordinary skill in the art to modify the invention of Lundback in view of Samson, at taught

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by Rau, to provide the suction electrode with a needle electrode in order to provide fixation without electrode paste or jelly and to reduce skin resistance.

Claims 34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lundback (US 4,736,749) in view of Samson (US 6,185,442) as applied to claim 28 above, and further in view of Colliou et al. (US 7,020,531).

Regarding claims 34 and 35, Lundback in view of Samson disclose the claimed invention except for explicitly reciting that the source of stimulation is configured to provide stimulation pulses that are about 1 msec in duration, 10 mA and two stimulation pulses per second. Colliou et al. disclose a stimulating suction electrode device and teach providing the device with a power source capable of delivering 1 mA to 30 mA of current, a pulse width of 0.1 msec to 500 msec and a pulse burst repetition period of about 100  $\mu$ sec to 20 msec in order to provide electrical stimulation, see col. 23, line 46 through col. 24, line 6 and figures 16A and 16B. Therefore at the time of the invention it would have been obvious to one of ordinary skill in the art to modify the invention of Lundback in view of Samson, as taught by Colliou et al., to provide the device with a power source capable of delivering 1 mA to 30 mA of current, a pulse width of 0.1 msec to 500 msec and a pulse burst repetition period of about 100  $\mu$ sec to 20 msec in order to provide electrical stimulation to tissue.

***Response to Arguments***

Applicant's arguments with respect to claims 7-11, 28, 30-35, 37-40 and 43-47 have been considered but are moot in view of the new ground(s) of rejection.

Regarding the recitation "the suction device being removably securable to myocardial tissue" in independent claims 7, 28 and 43, the examiner has objected to it above and has interpreted it as intended use and/or functional language in order to provide an examination.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron Roane whose telephone number is (571) 272-4771. The examiner can normally be reached on Monday-Thursday 7AM-6PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda Dvorak can be reached on (571) 272-4764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Aaron Roane  
May 9, 2007

*A.R.*

*Michael Peffley*  
MICHAEL PEFFLEY  
PRIMARY EXAMINER